Guide: How to Set Up Arduino IDE with ESP Libraries

Follow this step-by-step guide to configure the Arduino IDE to work with ESP32 and ESP8266 boards.

Step 1: Download and Install Arduino IDE 2.3.1

- **Download the Arduino IDE (version 2.3.1) for Windows (64-bit)** by clicking the link below:
    - [Download Arduino IDE 2.3.1](#)
- **Install the Arduino IDE** by running the `.msi` file and following the installation instructions.

Step 2: Add ESP Board Manager URLs

1. **Open Arduino IDE.**
2. Navigate to **File -> Preferences**. A window will pop up.
3. In the **Preferences** window, scroll down to find the box labeled **"Additional Boards Manager URLs"**.
4. Click the blue icon to the right of this box to open the URLs input field.
5. **Copy and paste the following URLs** into the input field:

```
https://dl.espressif.com/dl/package_esp32_index.json
https://raw.githubusercontent.com/espressif/arduino-esp32/gh-pages/package_esp32_index.json
https://arduino.esp8266.com/stable/package_esp8266com_index.json
```

6. After adding the URLs, click **OK** to save and close the Preferences window.

Step 3: Install ESP32 and ESP8266 Board Packages

1. Go to **Tools -> Board -> Board Manager** in the Arduino IDE.
2. In the search bar at the top of the **Boards Manager**, type `"esp"`.
3. Find and install the following board packages:
    - **ESP32 by Espressif Systems** (version 2.0.5).
    - **ESP8266 by ESP8266 Community** (version 2.7.4).

In case of missing drivers:

ESP8266: https://www.silabs.com/documents/public/software/CP210x_Windows_Drivers.zip

ESP32: https://learn.adafruit.com/how-to-install-drivers-for-wch-usb-to-serial-chips-ch9102f-ch9102/windows-driver-installation